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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,479	10/01/2003	Kenneth C. Shuey	ABME-0806/B970162	7529

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WOODCOCK WASHBURN LLP
CIRA CENTRE, 12TH FLOOR
2929 ARCH STREET
PHILADELPHIA, PA 19104-2891

EXAMINER	
BORISSOV, IGOR N	
ART UNIT	PAPER NUMBER
3628	

MAIL DATE	DELIVERY MODE
11/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,479	SHUEY ET AL.	
	Examiner	Art Unit	
	Igor N. Borissov	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/29/2008 has been entered.

Response to Amendment

Amendment received on 09/29/2008 is acknowledged and entered. Claims 1-16 have previously been canceled. Claim 17 has been amended. Claims 17-22 are currently pending in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The system claim 17 is vague and indefinite; it is not clear which part of the claim describes the known elements of the invention, including a preamble, and which part recites the new and inventive features of the Aplicant's invention. For example, claim 17 recites:

"17. (Previously presented) A server for use in an automated meter reading system, the automated meter reading system having a plurality of utility meters for measuring and recording metered data, a plurality of nodes, each node communicating with and associated with a number of designated meters to read the meter data, a

plurality of gateways, each gateway communicating with and associated with a number of the nodes to receive the meter data, and a data network interfaced to communicate with the plurality of gateways, ..."

It is not clear whether the automated meter reading system having a plurality of utility meters is a part of the invention, or merely identifies an application field of the invention or known elements. If the invention is comprised of a single server, it may trigger Claim Rejections under 35 U.S.C. 112 first paragraph (single means claims).

Furthermore, the claim, as a whole, appears to recite an intended use of the server, and does not provide any indication of functionality which said server is configured for.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 5,963,146) in view of Suzuki et al. (US 5,892,912).

Johnson et at. (Johnson) teaches an automated meter reading system comprising a plurality of utility meters for measuring and recording metered data; a plurality of nodes (cell nodes), each node communicating with a number of designated meters to read the meter data; a plurality of gateways (intermediate data terminal), each gateway communicating with a number of the nodes to receive the meter data; a data network (WAN) interfaced to communicate with the plurality of gateways, and a host server (Central Data Terminal) interfaced with the data network to receive the meter data read from the gateways, wherein said meters are grouped in a plurality of cells, each cell having a node; and wherein a plurality of nodes are grouped to be assigned to a

plurality of gateways; and wherein said host server maintaining a topology database, wherein said topology database comprising:

first electronic data representative of meter assignments to at least one node;

second electronic data electronically keyed to said first electronic data and representative of node assignments to at least one gateway;

third electronic data electronically keyed to the second electronic data for grouping together a plurality of nodes to define groups of noninterfering nodes based at least in part on the node assignments; and

forth electronic data electronically keyed to the second electronic data for grouping together a plurality of gateways to define sets of noninterfering gateways, wherein the recited functionalities being implemented by Johnson computer system (Figs. 1, 6, 12, 13; C. 3, L. 45-65; C. 5, L. 12-29), and

wherein the network service modules 110 are permitted to transmit only during a predetermined time period (sequentially) so that an open time period is available for communication on the same frequency between the intermediate data terminal 114 and the remote cell node 112 without any *interference* from the remote cell nodes 112 (To this end the examiner point out that the claim requires only that "each group of noninterfering nodes comprises a group in which (a) no inbound transmission from any node in the group *interferes* with any inbound transmission from any other node in the group, and (b) no inbound transmission from any meter associated with any node in the group *interferes* with any inbound transmission from any meter associated with any other node in the group", and does not recite any functionality responsible for this effect. Other words, the claim require only that communications between the meters is conducted without interferences, without providing any details how this effect is achieved. Same reasoning applied to "gateway" feature).

Furthermore, Johnson teaches: "This level of communication can be carried out using a polling system from the intermediate data terminals 114 to each of the remote cell nodes 112 in turn preferably including a directional transmission system at the intermediate data terminal (C. 18, L. 13-20; C. 7, L. 44-45).

Johnson does not specifically teach the specifics of data structure defining association of groups of nodes.

Suzuki et al. (Suzuki) teaches an automated system for managing a plurality of nodes on a network, comprising a plurality of network nodes (meters) communicating with a designated switching hub (node), a plurality of switching hubs communicating with servers over the WAN, wherein said servers provide resources to the individual switching hubs. In use, the VLAN server stores MAC addresses of the nodes connected to the ports of the individual switching hubs, and VLAN identifiers specifying groups to which the respective nodes etc. belong. The file server stores document or data files. Each of the servers also is a node having a communication function, like the other nodes, and has a MAC address associated therewith and a VLAN identifier specifying a groups to which it belongs (C. 2, L. 47-65; C. 4, L. 55-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include the specifics of data structure defining association of groups of nodes, as disclosed in Suzuki, because it would advantageously allow to facilitate the management process of the network, thereby enhancing the efficiency of the system performance. Furthermore, in this case, each of the elements of the cited references combined by the Examiner performs the same function when combined as it does in the prior art. Thus, such a combination would have yielded predictable results. *See Sakraida,* 425 U.S. at 282, 189 USPQ at 453. Therefore, Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* (KSR, 82 USPQ2d at 1396) forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. See the recent Board decision Ex arte Smith, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007).

Claims 18-21, same reasoning as applied to claim 17.

Response to Arguments

Applicant's arguments filed 09/29/2008 have been fully considered but they are not persuasive.

In response to applicant's argument that the prior art fails to grouping together a plurality of nodes to define groups of noninterfering nodes and grouping together a plurality of gateways to define sets of noninterfering gateways, it is noted that claim 17 requires only that "each group of noninterfering nodes comprises a group in which (a) no inbound transmission from any node in the group *interferes* with any inbound transmission from any other node in the group, and (b) no inbound transmission from any meter associated with any node in the group *interferes* with any inbound transmission from any meter associated with any other node in the group", and does not recite any functionality responsible for this effect. Other words, the claim require only that communications between the meters is conducted without interferences, without providing any details how this effect is achieved. Accordingly, Johnson discloses an automated meter reading system comprising a plurality of utility meters for measuring and recording metered data; a plurality of nodes (cell nodes), each node communicating with a number of designated meters to read the meter data; a plurality of gateways (intermediate data terminal), each gateway communicating with a number of the nodes to receive the meter data; a data network (WAN) interfaced to communicate with the plurality of gateways, and a host server (Central Data Terminal) interfaced with the data network to receive the meter data read from the gateways, wherein said meters are grouped in a plurality of cells, each cell having a node; and wherein a plurality of nodes are grouped to be assigned to a plurality of gateways; and wherein said host server maintaining a topology database, comprising data representative of: meter assignments to at least one node; node assignments to at least one gateway; data for grouping together a plurality of nodes to define groups of *noninterfering* nodes based at least in part on the node assignments; data for grouping together a plurality of gateways to define sets of *noninterfering* gateways, wherein said functionalities being implemented

by Johnson computer system (See the discussion above). Furthermore, Johnson explicitly addresses the interfering problem and provides a solution to avoid said problem by sequentially/systematically polling each node to avoid any interference from the remote cell nodes (C. 18, L. 13-20; C. 7, L. 44-45). Suzuki was applied to disclose the specifics of data structure defining association of groups of nodes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Igor N. Borissov/

Primary Examiner, Art Unit 3628

11/09/2008